



PLAGUE

What is plague?

Plague is a serious disease caused by *Yersinia pestis* (*Y. pestis*), a bacteria found in rodents and their fleas in many areas around the world. Two forms of the disease are bubonic plague and pneumonic plague. Approximately 5-15 naturally occurring cases occur each year in the western United States, and are readily controlled by standard public health measures. Most of these cases are the bubonic form of the disease.

What is the difference between bubonic plague and pneumonic plague?

Bubonic plague is transmitted through the bite of an infected flea, or through exposure to infectious material through a break in the skin. Bubonic plague cannot be transmitted from person to person.

Pneumonic plague is transmitted when a person breathes in *Y. pestis* particles in the air, resulting in infection of the lungs. Pneumonic plague can be transmitted from person to person through close (within 6 feet) contact with a person (or animal) who has pneumonic plague. Pneumonic plague could also result from breathing in *Y. pestis* particles released into the air by a terrorist. Someone exposed to *Y. pestis* through the air—either from close, direct exposure to a person or animal with plague pneumonia or from an intentional aerosol release—would become ill within 1-6 days.

Symptoms of bubonic plague include fever, chills, and swollen, tender lymph glands called buboes.

Symptoms of pneumonic plague include fever, weakness, and pneumonia with shortness of breath, chest pain, cough, and sometimes bloody or watery sputum. Nausea, vomiting, and abdominal pain may also occur. Without early treatment, there is usually respiratory failure, shock, and rapid death.

Can plague be treated?

Yes. Several types of antibiotics are effective for treating plague, but they must be started early in the course of the disease.

Can a person exposed to plague bacteria avoid becoming sick?

Yes. People who have had close contact with a person who has pneumonic plague, or who have been exposed to aerosolized *Y. pestis*, can greatly reduce the chance of becoming sick if they begin antibiotic treatment soon after exposure. Treatment consists of taking antibiotics for 7 days.

Is a vaccine available to prevent pneumonic plague?

Currently, no plague vaccine is available in the United States.

Why are we concerned about plague as a bioweapon that could be used by terrorists?

Y. pestis used in an aerosol attack could cause cases of the pneumonic form of plague. About 1-6 days after becoming infected, people would develop pneumonic plague, and then could spread the disease to others who have close contact with them. Because of the delay between being exposed to the bacteria and becoming sick, people could travel over a large area before becoming contagious and potentially infecting others.

How long can plague bacteria exist in the environment?

Y. pestis is easily destroyed by sunlight and drying. When released into air, it can survive for up to 1 hour.

What should I do if I think I have plague?

If you are showing symptoms of plague infection, call your health-care provider right away.

Ready in 3 is an emergency-preparedness program for Missouri. The Missouri Department of Health and Senior Services sponsors the program. **Ready in 3** aims to help residents and communities prepare for many types of emergencies from tornadoes to terrorism. For more information, visit www.dhss.mo.gov.

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What should I do if cases of plague start to occur in my community?

Your local health department and the Missouri Department of Health and Senior Services will provide you with information.

Adapted from CDC. *Frequently Asked Questions (FAQ) About Plague*. October 3, 2002.

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